

Jer ID 111675

Number-01-14 10:08:19 AM

Report
111675

RH

Page 1

Item ID: D119-646-143

Accept

N900040100

Setup Start *NS1*

Revision ID:

Item Name: Replacement Skidtube with Wearplates & Wearpads, DART (Apical) Tri-Bag Float Compatible, Fits LH & R

Stop *NS2*

Start Date: 1/17/14 Start Qty: 1.00

1

Cust Item ID:

Required Date: 1/24/14 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: *W*

Date:

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/

Operation

Set Up/

Tool ID

Tool #

Plan

Accept

Reject

Reject

Insp.

Work Center ID

Description

Run Hours

Code

Qty

Qty

Number

Stamp

Draw Nbr

Revision Nbr

D3905-043

D

IIN-D119-646

C

100

0.00

100

DC

Doc.Control -USB or Paperwork

Memo

0.00

Photocopy bluefile & type labels per PPP D119-646-143

CHG 003

001 per GEN 14.620

110

0.00

110

Skidtubes

Skidtubes

Memo

0.00

1- Inspect Mat'l D2500-1-190 for damage

2- Ensure squareness of ends

> DGC 14-12-3

Work Order ID 111675

111675

Page 2

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Item ID: D119-646-143

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Replacement Skidtube with Wearplates & Wearpads, DART (Apical) Tri-Bag Float
Compatible, Fits LH & R

Stop

NS2

Start Date: 1/17/14

Start Qty: 1.00

1

Cust Item ID:

Required Date: 1/24/14

Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID
120

Operation

Description

Chemical Conversion Coat per QSI005 4.1

Set Up/
Run Hours

0.00

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

120

HandFinish

Memo

0.00

Hand Finishing

1 14-12-3 DGC

130

QC7-Inspect Chemical Conversion Coat

0.00

130

QC

Memo

0.00

Quality Control

DAS 03 9:38 DP 14-12-3

Work Order ID 111675

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Item ID: D119-646-143**Accept*****N900040100*****Setup Start *NS1*****Revision ID:****Item Name:** Replacement Skidtube with Wearplates & Wearpads, DART (Apical) Tri-Bag Float
Compatible, Fits LH & R**Stop *NS2*****Start Date:** 1/17/14 **Start Qty:** 1.00 ***1*****Cust Item ID:****Required Date:** 1/24/14 **Req'd Qty:** 1.00 ***1*****Customer:****Reference:****Approvals:** **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____**Run Start *NR1*****QC:** _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____**Stop *NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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150

Skidtubes

Skidtubes

Memo

0.00

1- Install drill jig DT9480 drill all x-bolt spacer holes using 3/16 drill first side only.

2- 2nd side, locating from first saddle holes use DT9861 A/B to drill 2nd side fwd saddle holes.

3- 2nd side locating from fwd saddle drill remaining crossbolt spacer holes using DT9477

4- Scribe batch # inside aft end of tube

1 0 14-12-14 [Signature]

155

0.00

155

CNC Bend 1

CNC Delta 100 Bender

Memo

0.00

1- Bend AFT end of tube using CNC Bender 1 and bend prog. D3905 AFT as per dwg D3905. Must use bending Aid DT9538, located 23.25" from Aft end.

2- Ensure bending Aid DT9538 is positioned correctly, that the bender set up in on full wide and that the indexing ridge is covered with graphite grease.

1 0 14-12-15 [Signature]

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Item ID: D119-646-143

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Replacement Skidtube with Wearplates & Wearpads, DART (Apical) Tri-Bag Float
Compatible, Fits LH & R

Stop

NS2

Start Date: 1/17/14

Start Qty: 1.00

1

Cust Item ID:

Required Date: 1/24/14

Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center ID
165Operation
Description

QC5- Inspect part completeness to step on W/O

Set Up/
Run Hours
0.00

Tool ID

Tool # Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp***165***

QC

Memo

0.00

Quality Control

DAS
03
9-89

14-12-15

Work Order ID 111675

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Item ID: D119-646-143

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Replacement Skidtube with Wearplates & Wearpads, DART (Apical) Tri-Bag Float
Compatible, Fits LH & R

Stop

NS2

Start Date: 1/17/14

Start Qty: 1.00

1

Cust Item ID:

Required Date: 1/24/14

Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center ID
180Operation
DescriptionSet Up/
Run Hours
0.00

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp***180***

Skidtubes

Skidtubes

Memo

0.00

✓ Verify dimension of bend as per dwg D3905

✓ Buff out marks left from bending.

✓ Drill Aft Float bag holes using DT9493 as per dwg D3905 detail G and
section F-F, spot face most fwd, top facing wearplate holes to 0.5626" to
accommodate insert (1 per side) open to finished size✓ Drill Aft wearplate and wearpad holes using DT9545 as per dwg D3905 detail
H open to finished size5- Open x-bolt spacer holes to finished size as per dwg (sections D-D and E-E)
DO NOT OPEN FWD SADDLE HOLES

6- Deburr, blow out chips from inside of tube

7- Bond web in place as per Dwg D3905 & QSI 015.

A/RSikaflex-291

Sikaflex expire date: 12-9-14Start: 14-12-15Time: 1.00Finish: 14-12-15Time: 1.35

***** (Adhere for 12 hours) *****

14-12-15 

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Item ID: D119-646-143**Accept*****N900040100*****Setup Start*****NS1*****Revision ID:****Item Name:** Replacement Skidtube with Wearplates & Wearpads, DART (Apical) Tri-Bag Float
Compatible, Fits LH & R**Stop*****NS2*****Start Date:** 1/17/14 **Start Qty:** 1.00***1*****Cust Item ID:****Required Date:** 1/24/14 **Req'd Qty:** 1.00***1*****Customer:****Reference:****Approvals:** **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____**Run Start*****NR1*****QC:** _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____**Stop*****NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Down Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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190

QC

Memo

0.00

Quality Control

DAS
03
9-89

14-12-16

200

0.00

200

CNC Bend 1

Memo

0.00

CNC Delta 100 Bender

1- Bend Fwd end of tube using bender 1 and bend prog. D3905 Fwd.Use
bending aid DT9544 ensure proper positioning

2- Cut Fwd end of tube as per dwg.

VERIFY MEASUREMENT BEFORE CUTTING

DGC/JH
14-12-16

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Item ID: D119-646-143**Accept*****N900040100*****Setup Start*****NS1*****Revision ID:****Item Name:** Replacement Skidtube with Wearplates & Wearpads, DART (Apical) Tri-Bag Float
Compatible, Fits LH & R**Stop*****NS2*****Start Date:** 1/17/14**Start Qty:** 1.00***1*****Cust Item ID:****Required Date:** 1/24/14**Req'd Qty:** 1.00***1*****Customer:****Reference:****Approvals:****Process Plan:****Date:****Tooling:****Date:****Run Start*****NR1*****QC:****Date:****SPC (Y/N):****Date:****Stop*****NR2*****Sequence ID/
Work Center ID**
210**Operation
Description****Set Up/
Run Hours**
0.00**Tool ID****Tool #****Plan
Code****Accept
Qty****Reject
Qty****Reject
Number****Insp.
Stamp*****210***

Skidtubes

Skidtubes

Memo

0.00

1- Buff out marks left from bending

2- Drill Fwd cap holes using DT8215.

3- Open Fwd saddle holes to finished size as per dwg

4- Drill Fwd x-bolt hole using DT9816 and open to finished size as per dwg.

5- Drill 1.87" and 3.74 holes using DT9494 locate from FWD cap hole. (verify measurement) as per dwg DEO D3905-B-1.

6- Drill towing hole and open to finished size using DT9494

7- Drill wearplate holes using DT9613, open to finished size as per dwg D3905-043

8- Open FWD & AFT cap holes as dwg.

9- Deburr, blow out chips from inside of tube.



15-1-15

14.12.17

Seq 210

- 1- Buff out marks left from bending
- 2- Drill Fwd cap holes using DT8215.
- 3- Open Fwd saddle holes to finished size as per dwg
- 4- Drill Fwd x-bolt hole using DT9816 and open to finished size as per dwg.
- 5- Drill 1.87" and 3.74 holes using DT10045 A&B locate from FWD saddle hole hole. (verify measurement) as per dwg.
- 6- Drill towing hole and open to finished size using DT10047 locate from fwd saddle hole.
- 7- Drill wearplate holes using DT9613, open to finished size as per dwg D3905-043
- 8- Open FWD & AFT cap holes as dwg.
- 9- C'sink FWD cap hole as per detail "C"
- 10- Deburr, blow out chips from inside of tube.

Seq 224

NOTE: TACK IN 2 MOST FWD X-BOLT SPACERS AND TEST FIT FWD GROUND HANDLING FIXTURE, IF FIXTURE FITS WELL THEN PROCEED. FIXTURE DT10091.

- 1- Countersink x-bolt holes as per dwg
- 2- Remove alodine prepare for welding
- 3- Insert x-bolt spacers
- 4- Weld x-bolt spacer as per dwg

A/R Alum rod Batch: _____

- 5- Grind welds flush as per dwg
- 6- Counter bore x-bolt holes as per dwg
- 7- Deburr

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Item ID: D119-646-143

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Replacement Skidtube with Wearplates & Wearpads, DART (Apical) Tri-Bag Float
Compatible, Fits LH & R

Stop

NS2

Start Date: 1/17/14

Start Qty: 1.00

1

Cust Item ID:

Required Date: 1/24/14

Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center ID
220

Operation

Description

QC5- Inspect part completeness to step on W/O

Set Up/
Run Hours

0.00

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp***220***

QC

Memo

0.00

Quality Control

15-01-15 PD

224

0.00

224

Skid tubes

Memo

0.00

Skid tubes

1- Countersink x-bolt holes as per dwg

2- Remove alodine prepare for welding

3- Insert x-bolt spacers

4- Weld x-bolt spacer as per dwg

A/R Alum rod Batch: m1308/2

5- Grind welds flush as per dwg

6- Counter bore x-bolt holes as per dwg

7- Deburr

BE15-01-22

15-1-27

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Item ID: D119-646-143

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2Item Name: Replacement Skidtube with Wearplates & Wearpads, DART (Apical) Tri-Bag Float
Compatible, Fits LH & R

Start Date: 1/17/14

Start Qty: 1.00

1

Cust Item ID:

Required Date: 1/24/14

Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center ID
225

Operation

Description

QC5- Inspect part completeness to step on W/O

Set Up/
Run Hours

0.00

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp***225***

QC

Memo

0.00

Quality Control

① 15-01-30

DAS
9
9-89

226

QC10- Inspect visual per QSI004- ground welds

0.00

226

QC

Memo

0.00

Quality Control

① 15-01-30

DAS
9
9-89

227

Pressure Wash per QSI005 4.3

0.00

227

HandFinish

Memo

0.00

Hand Finishing

AND REALODINE AS PER PAR09-043

15-2-4


Work Order ID 111675

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111675

Page 10

Item ID: D119-646-143 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Replacement Skidtube with Wearplates & Wearpads, DART (Apical) Tri-Bag Float
 Start Date: 1/17/14 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 1/24/14 Req'd Qty: 1.00 *1* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
240	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
240	Memo M131545 APPLY PRIME/PAINT PER D3905 Rev. D A.P. 15.09.25	0.00				1	0	15-6-4.	DAS 34 88
245	QC3- Inspect Part Finish	0.00							
245	Memo	0.00				1RH	0	15/11/23	P.T.O. last page DAS 15 988
250		0.00							
250	Memo	0.00				1RH	0	16/11/23	
HandFinish									
Hand Finishing	1-Install inserts as per Dwg D3905.								

Work Order ID 111675

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Item ID: D119-646-143

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2Item Name: Replacement Skidtube with Wearplates & Wearpads, DART (Apical) Tri-Bag Float
Compatible, Fits LH & R

Start Date: 1/17/14 Start Qty: 1.00

1

Cust Item ID:

Required Date: 1/24/14 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

NR1

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

NR2Sequence ID/
Work Center ID
260**Operation**

Description

QC5- Inspect part completeness to step on W/O

Set Up/

Run Hours

0.00

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp***260***

QC

Memo

0.00

Quality Control

1 ϕ 16-11-03. D.S. 34 9.89

270

0.00

270

HandFinish

Memo

0.00

Hand Finishing

1-Install wearpads, gaskets and wearplates as per Dwg D3905. Put sikaflex in
insert before installing bolts and washers

A/RSikaflex-240/-291

Sikaflex expire date:

M113577Z
17102

2- install plugs assembly with o-ring lube as per dwg.

A/R o-ring lube 55 Batch:

M113547Z RTU 698 M1135479 18/04

3 -Inspect for foreign objects as per QSI 024

4 -Install Aft Cap and seal with Sikaflex. Clean excess adhesive.

A/RSikaflex-240/-291

Sikaflex expire date:

M113577Z
17102

5- Wing Walk as per dwg QSI005 4.4

Batch: M1135819

12H ϕ M 16/11/02

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Item ID: D119-646-143**Accept*****N900040100*****Setup Start *NS1*****Revision ID:****Item Name:** Replacement Skidtube with Wearplates & Wearpads, DART (Apical) Tri-Bag Float
Compatible, Fits LH & R**Stop *NS2*****Start Date:** 1/17/14 **Start Qty:** 1.00 ***1*****Cust Item ID:****Required Date:** 1/24/14 **Req'd Qty:** 1.00 ***1*****Customer:****Reference:****Approvals:** **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____**Run Start *NR1*****QC:** _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____**Stop *NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
280	QC5- Inspect part completeness to step on W/O	0.00							DAS 38 9-89
280									
QC	Memo	0.00							
Quality Control									NOV 04 2016
286	QC3- Inspect Part Finish	0.00							DAS 38 9-89
286									
QC	Memo	0.00							
Quality Control									NOV 04 2016
290	Identify as per dwg & Stock Location: _____	0.00							
290									
Packaging	Memo	0.00							
Packaging									

DAS
27
9-89

NOV 08 2016

Work Order ID 111675***111675***

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Item ID: D119-646-143**Accept*****N900040100*****Setup Start*****NS1*****Revision ID:****Item Name:** Replacement Skidtube with Wearplates & Wearpads, DART (Apical) Tri-Bag Float
Compatible, Fits LH & R**Stop*****NS2*****Start Date:** 1/17/14**Start Qty:** 1.00***1*****Cust Item ID:****Required Date:** 1/24/14**Req'd Qty:** 1.00***1*****Customer:****Reference:****Approvals:****Process Plan:** _____**Date:** _____**Tooling:** _____**Date:** _____**Run Start*****NR1*****QC:** _____**Date:** _____**SPC (Y/N):** _____**Date:** _____**Stop*****NR2*****Sequence ID/
Work Center ID**
300**Operation****Description**

QC21- Final Inspection - Work Order Release

**Set Up/
Run Hours**

0.00

Tool ID**Tool #****Plan
Code****Accept
Qty****Reject
Qty****Reject
Number****Insp.
Stamp*****300***

QC

Memo

0.00

Quality Control

DAS
21
9-89

NOV 08 2016



Picklist Print

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Page 1

Work Order ID: 111675

111675

Parent Item: D119-646-143

D119-646-143

Parent Item Name: Replacement Skidtube with Wearplates & Wearpads, DART (Apical) Tri-Bag
Float Compatible, Fits LH & R

Start Date: 1/17/14

Required Date: 1/24/14

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP RevA: New issue DD verified by:EC IPP REVb
12.11.05 (DEOD3905-B-1)(ecn 12-675) DD verf:JLM IPP REV:C 13.03.20
per chg003 ECN13-534 DD verf:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2500-1-190

Manufactured No

110

Each

114.0000

1

1

D2500-1-190

Ext'n -I' Beam Tube 4"

**

14-12-31

Location

Loc Qty

Loc Code

LG002

114

105279

2

117806

20

120085

92

D2579

Manufactured No

Each

218.0000

2

D2579

Crossbolt Spacer

**

BEA BEIS-01-22

Location

Loc Qty

Loc Code

LG001

218

113785

24

123997

194

D2855-3

Manufactured No

270

Each

26.0000

2

2

D2855-3

Cap

**

all 16/1/03

Location

Loc Qty

Loc Code

FP001

26

111898

22

117601

4

B142564

x2

Picklist Print

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Work Order ID: 111675

111675

Parent Item: D119-646-143

D119-646-143

Parent Item Name: Replacement Skidtube with Wearplates & Wearpads, DART (Apical) Tri-Bag
Float Compatible, Fits LH & R

Start Date: 1/17/14

Required Date: 1/24/14

D3492-5

Manufactured No

270

Each

Start Qty: 1.00
114.0000 16 16

Required Qty: 1.00

D3492-5

Plug

**

1611103

Location

Loc Qty

Loc Code

FP001

114

B150918

X16

104854

3

105612

4

112740

65

120153

42

NAS1611-005

Purchased No

270

Each

366.0000 16 16

NAS1611-005

O-RING

**

1611103

Location

Loc Qty

Loc Code

FP001

366

M135706

X16

m126974

15

m129198

75

m129384

276

D3672-1

Manufactured No

270

Each

653.0000 2 2

D3672-1

Washer, Phenolic

**

1611103

Location

Loc Qty

Loc Code

FG

10

M134785

X2

85222

10

ST055

643

113581

414

120116

187

80369

34

99099

8

Picklist Print

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Work Order ID: 111675

111675

Parent Item: D119-646-143

D119-646-143

Parent Item Name: Replacement Skidtube with Wearplates & Wearpads, DART (Apical) Tri-Bag
Float Compatible, Fits LH & R

Start Date: 1/17/14

Required Date: 1/24/14

D3681-1 Manufactured No

190 Each

Start Qty: 1.00
8 8

Required Qty: 1.00

D3681-1

Spacer

**

DEL-01-22

Location

Loc Qty

Loc Code

LG001

70

114884

2

123088

36

124420

32

D3846-1 Manufactured No

270 Each

16.0000 1 1

D3846-1

Gasket

**

8 +1

Location

Loc Qty

Loc Code

FP001

16

51827

4

53735

12

D3846-11 Manufactured No

270 Each

44.0000 1 1

D3846-11

Gasket

**

Location

Loc Qty

Loc Code

FP001

44

93954

44

D3847-1 Manufactured No

270 Each

33.0000 8 8

D3847-1

Wearpad

**

all 16/11/03

Location

Loc Qty

Loc Code

FP001

33

112444

11

113736

11

88420

11

B150934

x2

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Shop Packet Print

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Picklist Print

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Work Order ID: 111675

111675

Parent Item: D119-646-143

D119-646-143

Parent Item Name: Replacement Skidtube with Wearplates & Wearpads, DART (Apical) Tri-Bag
Float Compatible, Fits LH & R

Start Date: 1/17/14

Required Date: 1/24/14

D3847-11

Manufactured No

270 Each

Start Qty: 1.00
18.0000 1 1

Required Qty: 1.00

D3847-11

Wearpad

**

ll 16/11/13

Location

Loc Qty

Loc Code

FP001

18

B142783

xl

112558

8

113833

10

D3847-043

Manufactured No

270 Each

3.0000 1 1

D3847-043

Fwd Wearplate Assy, Std/Float Gear

**

ll 16/11/13

Location

Loc Qty

Loc Code

FP002

3

B139751

xl

51820

1

52533

2

D3847-045

Manufactured No

270 Each

6.0000 1 1

D3847-045

Center Wearplate Assy, Std/Float

**

ll 16/11/13

Location

Loc Qty

Loc Code

FP002

6

B139752

xl

87210

4

88242

2

D3847-049

Manufactured No

270 Each

6.0000 1 1

D3847-049

Aft Wearplate Assembly, Float Gear

**

ll 16/11/13

Location

Loc Qty

Loc Code

ST606

6

B136733

xl

88267

2

93904

4

Picklist Print

December-01-14 10:08:18 AM

Page 5

Work Order ID: 111675

111675

Parent Item: D119-646-143

D119-646-143

Parent Item Name: Replacement Skidtube with Wearplates & Wearpads, DART (Apical) Tri-Bag
Float Compatible, Fits LH & R

Start Date: 1/17/14

Required Date: 1/24/14

D3885-3 Manufactured No

170 Each

6.0000 Start Qty: 1.00

Required Qty: 1.00

D3885-3

Standard Web

**

14-12-10/11

Location

Loc Qty

Loc Code

LG002

6

99134

6

①

D3903-1 Manufactured No

190 Each

88.0000 12

12

D3903-1

Spacer

**

8-15-01-21

Location

Loc Qty

Loc Code

LG001

88

112408

2

117619

46

124312

40

12

D3672-3 Manufactured No

270 Each

821.0000 12

12

D3672-3

Washer, Phenolic

**

N/A

Location

Loc Qty

Loc Code

FG

111

84432

11

89273

100

ST055

263

107316

11

110251

8

112455

9

113746

188

124349

39

89273

7

93925

1

ST064A

447

121577

447

Picklist Print

December-01-14 10:08:18 AM

Page 6

Work Order ID: 111675

111675

Parent Item: D119-646-143

D119-646-143

Parent Item Name: Replacement Skidtube with Wearplates & Wearpads, DART (Apical) Tri-Bag
Float Compatible, Fits LH & R

Start Date: 1/17/14

Required Date: 1/24/14

D3683-3

Purchased

No

250

Each

Start Qty: 1.00
235.0000 12 12

Required Qty: 1.00

D3683-3

Insert

N/D
(16-1-18)

W/L

Location

Loc Qty

Loc Code

ST057

235

47805

235

ALS4-1032-130

AELS4-1032-130

Purchased

No

250

Each

2,627.000 42 42

AI S4-1032-130

Rivnut

ALS 7-1032-130

all 1/11/23

Location

Loc Qty

Loc Code

st549

2627

M126109

57

M128211

48

M128649

2522

AN3C5A

Purchased

No

270

Each

2,020.000 44 44

AN3C5A

Bolt

all 1/11/07

Location

Loc Qty

Loc Code

FG

5

122800

5

M1135297

x34

ST338a

1932

M130770

1000

M130851

932

M1135603

x10

ST350

83

M128911

25

M128973

10

M129913

4

M130358

44

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Shop Packet Print

Picklist Print

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Work Order ID: 111675

111675

Parent Item: D119-646-143

D119-646-143

Parent Item Name: Replacement Skidtube with Wearplates & Wearpads, DART (Apical) Tri-Bag
Float Compatible, Fits LH & R

Start Date: 1/17/14

Required Date: 1/24/14

NAS1149C0332R

Purchased

No

Each

Start Qty: 1.00
6,027.000

44

Required Qty: 1.00

NAS1149C0332R

WASHER

**

all 18/11/63

Location

Loc Qty

Loc Code

CA

83

M135672

244

m129682

83

ST271

5944

122063

41

125654

237

m126319

51

m127306

1425

m127831

26

m128591

75

m129499

191

m130325

2898

m130466

1000

NAS1149C0463R

Purchased

No

Each

500.0000

12

NAS1149C0463R

Washer

**

N/A

Location

Loc Qty

Loc Code

ST271

500

119097

1

123248

2

123355

55

m127306

114

m128401

328

MS27039C4-08

Purchased

No

270

Each

188.0000

12

12

MS27039C4-08

SCREW

**

N/A

Location

Loc Qty

Loc Code

ST282

188

m126319

88

m128429

100

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Page 7

Picklist Print

December-01-14 10:08:18 AM

Page 8

Work Order ID: 111675

111675

Parent Item: D119-646-143

D119-646-143

Parent Item Name: Replacement Skidtube with Wearplates & Wearpads, DART (Apical) Tri-Bag
Float Compatible, Fits LH & R

Start Date: 1/17/14

Required Date: 1/24/14

MS24694-C52

Purchased

No

Each

Start Qty: 1.00
132.0000

2

Required Qty: 1.00

MS24694-C52

SCREW

**

all 16/11/02

Location

Loc Qty

Loc Code

ST287

132

124308

50

m127059

82

M135466

x2

*Add 1x DST 9688-011 if NOT N/A 16-11-02
going into -113/114 kit
W*

ADD:

AN4C46A X3:✓

B: 135311

D5101-041 X2:✓

B: 137412

D5101-047 X1:✓

*B: B144975 **

D5101-3 X6:✓

B: 135947 X4 (B127964) X2

D5101-5 X6:✓

B: 135949

MS21043-4 X3:✓

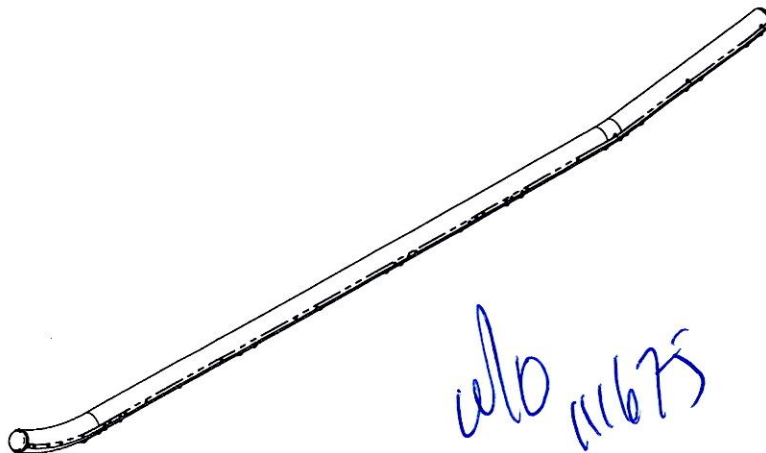
B: 135800

all 16/11/02

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Page 8



D3905-041 FLOAT SKIDTUBE ASSY WITH WEARPAD (SHOWN)
D3905-043 FLOAT SKIDTUBE ASSY WITH WEARPLATE (SIMILAR)
D3905-045 FLOAT SKIDTUBE ASSY WITH TRAINING WEARPLATE (SIMILAR)

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSERTING D3885-3 FLOAT WEB PRIME (REF. 4.2.1.3.3) AND PAINT WHITE PER DART QSI 005 4.2 BLACK ANTI-SKID PAINT AS INDICATED TO 0.5 ABOVE LOCATION RIDGE PER DART QSI 005 4.4
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: D3905-041 = 35.4 lbs
D3905-043 = 42.8 lbs
D3905-045 = 48.0 lbs
- 8) WELD PER DART QSI 004
- 9) DAMAGE TOLERANCE ON FWD BEND:
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 8.5 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP 0.020" DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
- 10) INSERT D3885-3 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH SIKAFLEX-241/291 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP
- 11) INSERT D3492-045 PLUG ASSY INTO Ø0.197 HOLES (BOTH SIDES OF TUBE)
- 12) USE DART DRILL TEMPLATE DT8932 TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARPLATE INSERTS. INSTALL AELS-1032-130 INTO D3905-11 ONLY. INSTALL AN3C5A BOLTS AND NAS1149C0332R WASHERS WITH SIKAFLEX-241/291.

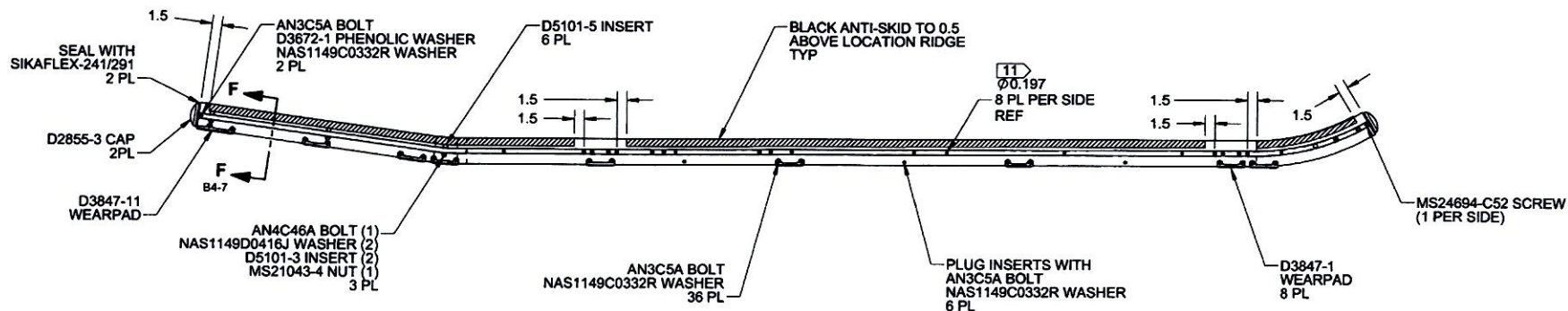
ITEM	QTY -041	QTY -043	QTY -045	P/N	DESCRIPTION
1	X			D3905-041	FLOAT SKIDTUBE ASSY WITH WEARPAD
2		X		D3905-043	FLOAT SKIDTUBE ASSY WITH WEARPLATE
3			X	D3905-045	FLOAT SKIDTUBE ASSY WITH TRAINING WEARPLATE
10	2	2	2	D2579	CROSS BOLT SPACER
11	2	2	2	D2855-3	CAP
12			16	D3411-3	WASHER
13	16	16		D3492-045	PLUG ASSY
14	2	2	2	D3672-1	PHENOLIC WASHER
15	8	8	8	D3681-1	SPACER
16	8	8	1	D3847-1	WEARPAD
17	1	1	1	D3847-11	WEARPAD
18		1		D3847-043	FWD WEARPLATE ASSY
19		1		D3847-045	CENTER WEARPLATE ASSY
20		1		D3847-049	AFT WEARPLATE ASSY
21			1	D3849-045	AFT WEARPLATE ASSY
22			1	D3849-047	FWD WEARPLATE ASSY
23	1	1	1	D3885-3	FLOAT WEB
24	12	12	12	D3903-1	SPACER
25			16	D3904-1	WASHER
26	1	1		D3905-11	FLOAT SKIDTUBE
27			1	D3905-13	FLOAT SKIDTUBE
28	6	6	6	D5101-3	INSERT
29	6	6	6	D5101-5	INSERT
30	3	3	3	D5101-041	CROSSBOLT SPACER ASSY
41	42	42	10	ALS4-1032-130	INSERT
42	44	44	12	AN3C5A	BOLT
43			4	AN3C46A	BOLT
44			4	AN3C50A	BOLT
45	3	3	3	AN4C46A	BOLT
46	44	44	8	NAS1149C0332R	WASHER (OR AN960C10L)
47	12	12	12	NAS1149C0463R	WASHER (OR AN960C416)
48	6	6	6	NAS1149D0416J	WASHER
49			8	MS21043-3	NUT
50	3	3	3	MS21043-4	NUT
51	2	2	2	MS24694-C52	SCREW

RELEASED

2014 NOV 24
ECN 14-628

D	REVISED DIMENSIONS AND PROVIDED TOLERANCE TO SKIDTUBE OVERALL LENGTH PAGE 5-6 REVISED NOTE 2 AND NOTE 7 PAGE 1 (ZN B8- ZN A8-1) REVISED -041/-043/-045 DRAWING VIEWS, REVISED SECTION VIEW F-F (ZN B4-7) REVISED BOM REF. PARTS-299 AND PARTS-272	AK	14.08.08
C	(SHT 1 PL. ZN C2-2, C2-3, C2-4) ITEM 13, QTY 2 WAS 4. ITEM 42 AND 45, QTY 44 WAS 46. ADD ITEM 49, MS24694-C52 WAS AN3C5A, D3672-1 AND NAS1149C0332R. (ZN C7-7) Ø0.201 CSK Ø0.385 X 100" WAS Ø0.204 THRU. (ZN A4-5, A4-6) ADD RELIEF INSTRUCTION, ADD ITEM 10, CROSS BOLT SPACER (ZN D4-1, C8-7, D8-7)	DB	13.02.21
B	REVISED PART LIST, ALS4-1032-130 WAS AELS-1032-130 (ZN A6-5, A5-6, C5-7, C3-7, A5-7); ADD DT8932 (ZN A8-1); D2855-3 WAS D2575 (ZN C8-2, C1-2, C8-3, C1-3, C8-4, C1-4); AN3C5A WAS AN3C4A (ZN C7-2, C1-2, C7-3, C1-3, C7-4, C1-4); D3849-047 WAS D3849-041 (ZN B3-4); ADD D3411-3 (ZN B3-4); ADD AN3C50A (ZN B3-4); Ø0.313 WAS Ø0.328 (B2-5, B2-6, C2-7, A6-7 & D7-8), REVISED NOTE IV (ZN A8-7)	RF	09.06.30
D	NEW ISSUE	RF	09.03.30
REV.	DESCRIPTION	BY	DATE
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DE APPR.	DS	A119 FLOAT SKIDTUBE ASSY	NTS
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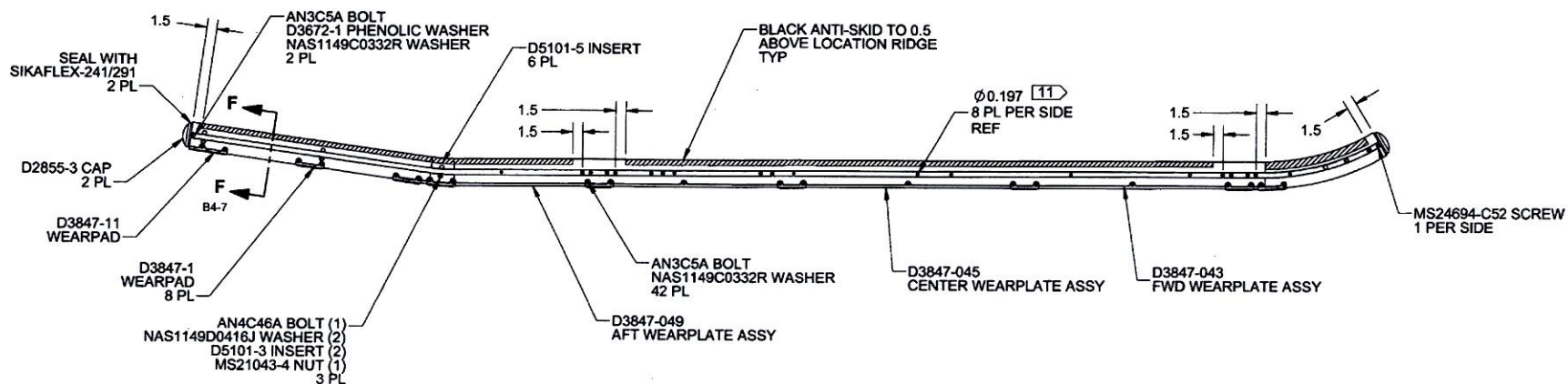


D3905-041 FLOAT SKIDTUBE ASSY WITH WEARPAD
(MAKE FROM D3905-11 SKIDTUBE)

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D3905-043 FLOAT SKIDTUBE ASSY WITH WEARPLATE
(MAKE FROM D3905-11 SKIDTUBE)

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SEAL WITH
SIKAFLEX-241/291
2 PL

D2855-3 CAP
2 PL

D3847-11
WEARPAD

AN3C5A BOLT
NAS1149C0332R WASHER
10 PL

D3847-1
WEARPAD

AN4C46A BOLT (1)
NAS1149D0416J WASHER (2)
D5101-3 INSERT (2)
MS21043-4 NUT (1)
3 PL

AN3C5A BOLT
D3672-1 PHENOLIC WASHER
NAS1149C0332R WASHER
(1 PER SIDE)

D5101-5 INSERT
3 PL

1.5
1.5

D3849-045
AFT TRAINING WEARPLATE ASSY

AN3C46A BOLT
D3904-1 WASHER, 2 PL
MS21043-3 NUT
4 PL

BLACK ANTI-SKID TO 0.5
ABOVE LOCATION RIDGE
TYP

1.5
1.5

AN3C50A BOLT
D3904-1 WASHER, 2 PL
D3411-3 WASHER, 4 PL
MS21043-3 NUT
4 PL

D3849-047
FWD TRAINING WEARPLATE ASSY

MS24694-C52 SCREW
1 PER SIDE

D3905-045 FLOAT SKIDTUBE ASSY WITH TRAINING WEARPLATE
(MAKE FROM D3905-13 SKIDTUBE)

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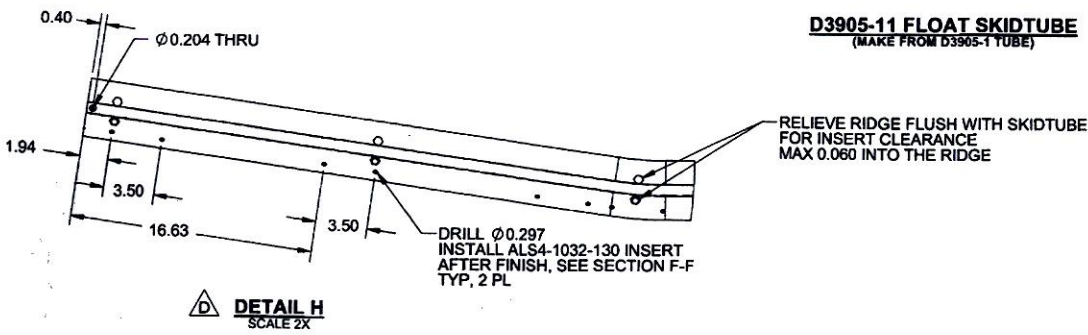
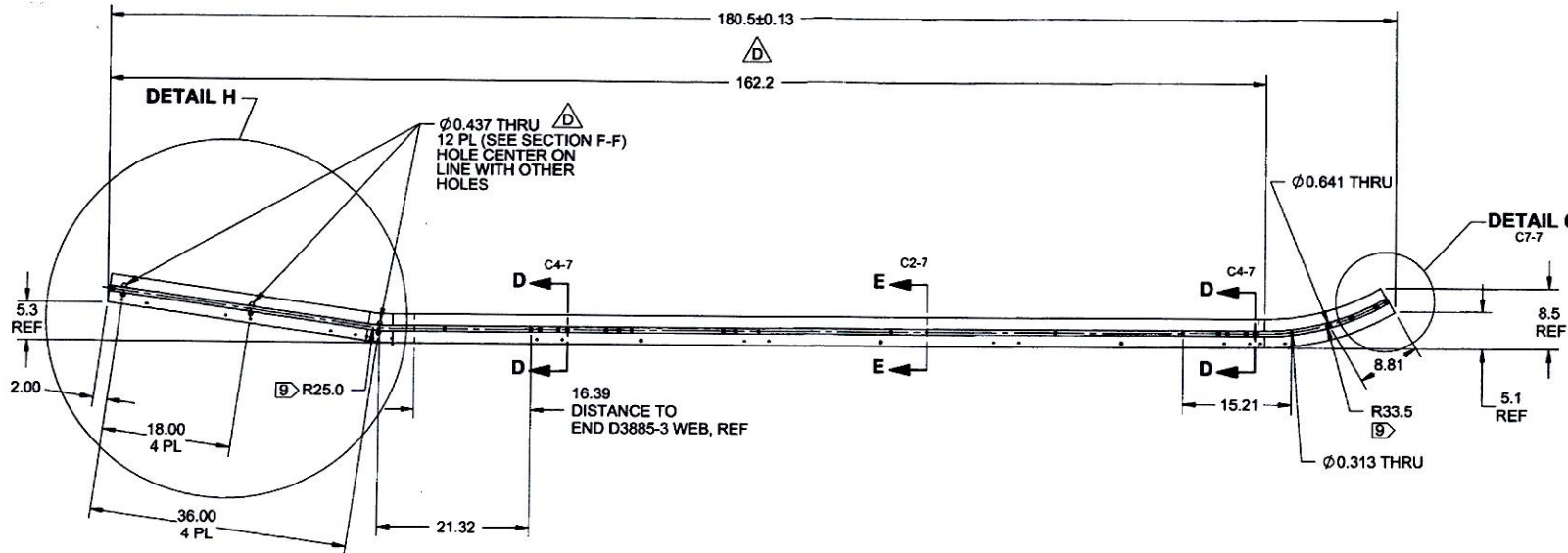
8 7 6 5 4 3 2 1

D D

C C

B B

A A



D3905-11 FLOAT SKIDTUBE
(MAKE FROM D3905-1 TUBE)

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8 7 6 5 4 3 2 1

DETAIL G

5.3
REF

2.00

18.00

4 PL

36.00

4 PL

R25.0

21.32

16.39

DISTANCE TO
END D3885-3 WEB, REF

180.5±0.13

162.2

Ø0.437 THRU
12 PL (SEE SECTION F-F)
HOLE CENTER ON
LINE WITH OTHER
HOLES

C4-7

D

C2-7

E

C4-7

D

Ø0.641 THRU

C7-7
DETAIL C

8.4
REF

8.81

5.1
REF

R33.5

Ø0.313 THRU

D3905-13 FLOAT SKIDTUBE
(MAKE FROM D3905-1 TUBE)

RELIEVE RIDGE FLUSH WITH SKIDTUBE
FOR INSERT CLEARANCE
MAX 0.060 INTO THE RIDGE

DRILL Ø0.297
INSTALL ALS4-1032-130 INSERT
AFTER FINISH, SEE SECTION F-F
TYP, 2 PL

DETAIL G
SCALE 2X

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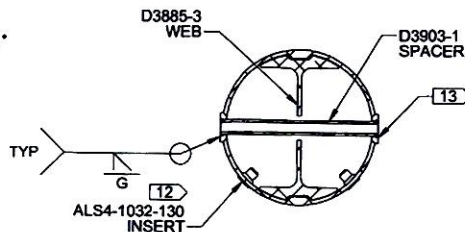
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2X $\phi 0.500$ THRU
CSK $\phi 0.625 \times 1.00$
2 PL PER SIDE

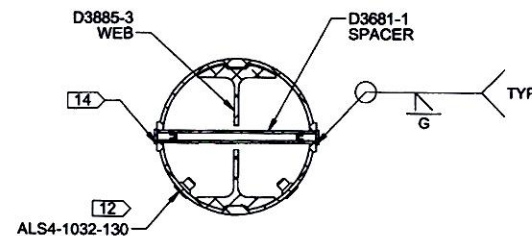
INSTALL
D2579 CROSS BOLT SPACER
2 PL

DETAIL C
SCALE 4X
C1-5
C1-6

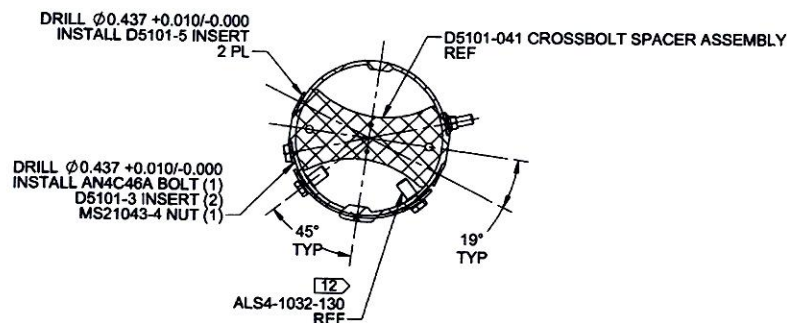
$\phi 0.204$ THRU
CSK $\phi 0.385 \times 100$
1 PER SIDE



SECTION D-D
SCALE 4X
(FOR 12 x $\phi 0.375$ HOLES
PER SKIDTUBE)



SECTION E-E
SCALE 4X
(FOR 8 x $\phi 0.313$ HOLES
PER SKIDTUBE)



SECTION F-F
SCALE 4X
C7-2
C7-3
C7-4

NOTES:

- 13) AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR $\phi 0.375$ HOLES ONLY:
i) CHAMFER HOLES $\phi 0.475 \times 45^\circ$ (BOTH SIDES)
ii) INSERT D3903-1 SPACER
iii) WELD INTO PLACE AND GRIND FLUSH
iv) C'BORE TO 0.313×0.75 DEEP
v) DEBURR HOLES

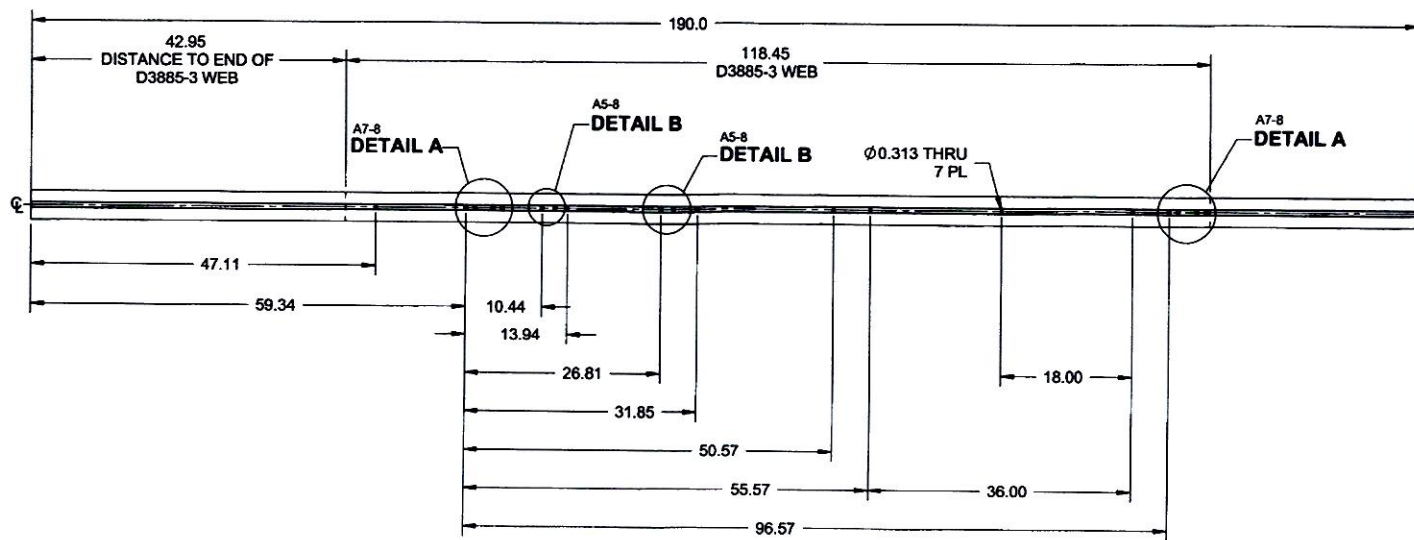
- 14) AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR $\phi 0.313$ HOLES ONLY:
vi) CHAMFER HOLES $\phi 0.354 \times 45^\circ$ OR 0.050 DEEP $\times 45^\circ$ (BOTH SIDES)
vii) INSERT D3681-1 SPACER
viii) WELD INTO PLACE AND GRIND FLUSH
ix) DEBURR HOLES

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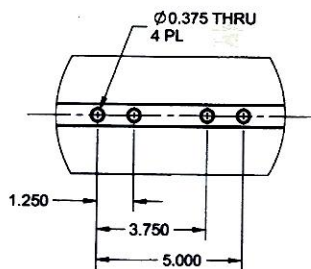
2014 NOV 24

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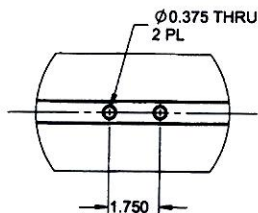
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D3905-1 TUBE
(MAKE FROM D2900-1-196 EXTRUSION)



DETAIL A
SCALE 4X D6-8
D2-8



DETAIL B
SCALE 4X D5-8
D4-8

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DQA:

Date: 2017-07-21



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date: JUL 20 2017

Work Order update only ☐

Work Order: 111675	DISPOSITION Rework ☒ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS			
Part No. 119-646-143		Skid-tube ☒	Crosstube ☒	Water Jet ☐	Engineering ☒
NCR No. 17-6322		Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐
		Thermoforming ☐	Finishing ☒	Rec/Store/Packaging ☐	Other ☐
		Large Fab ☐	Composite ☐	Supplier ☐	

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design ☒	15.08.13	210	1	INSTALLATION OF NEW 05101-5 INSERT REQUIRES CLEARANCE OF 0.100 " INSTEAD OF "0.060 MAX" A.R.	A.R. 15.08.13	ACCEPTABLE, ENVIRONMENTAL ERROR • Rework tube • Re-Finish (touch-up locally) • REVISE 17305 DWG Open PAR	 15-8-20	 15-8-20	DAS 9 9-89 15-08-20
Doc/Data ☐									
Equip/Tooling ☐									
Handling/Pre ☐									
Material ☐									
Operator ☐									
Offset/Setup ☐									
Process ☐									
Supplier ☐									
Training ☐									
Transport ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☒ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge	☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Work Order NCR

Reviewed
DQA:
Date:

Printed on: Tuesday, August 18, 2015

Details			
Raised Date 8/18/2015	Status Open	Owner Forbes, Nigel	Number NCR15-5252
Target Date 9/1/2015	Standard	Severity MAJOR	
Process Work Order NCR		Audit	
Raised By Person Duval, Patrick		Raised Against (Department or Supplier)	Fault Category General\BOM/Route
Details during re-work as per PAR15-447, it was notice that skidtube D119-646-143 was powdercoat and should have been spray paint			
Keywords		Product D119-646\D119-646-143	
Document		Root Cause Data/Documentation	
Closed By	Closed Date	Resolution	

Verification & Review			
Target Date 9/1/2015	Owner Duval, Patrick	Closed Date	Closed By
Details			

Actions			
Number	Owner	Target Date	Completed Date
Details		Response	
1	Lavoie, Chantal	9/1/2015	
issue PO to paint strip skidtube		P/O: 29548 C/L 15/08/21	
3	Duval, David	9/1/2015	
update route as per drawing D3905 Rev D			
2	Sheldon, Andrew	9/1/2015	
prime and paint as per drawing D3905 Rev D primer		DAS 41 15-10-1	
B13099 paint B132876 No paint on saddle Area		9-80	



Manufacturing Inc.

2056 County Rd #4, L'Original, Ontario K0b 1K0

Phone 613-675-1208

Fax 613-675-1250

PACKING SLIP

TO : DART AEROSPACE
1270 Aberdeen Street
Hawkesbury ON
K6A 1K7

Date : Aug 27/2015

SALESPERSON:		JOB #	PO NUMBER :	
		15-0354-22		
QTY ORDER	DESCRIPTION		QTY SHIP	LINE TOTAL
1	Decaper tuyaux aliminium		1 15/8/28 SD	

Client: (PRINT NAME) _____ (SIGNATURE) _____

THANK YOU FOR YOUR BUSINESS!

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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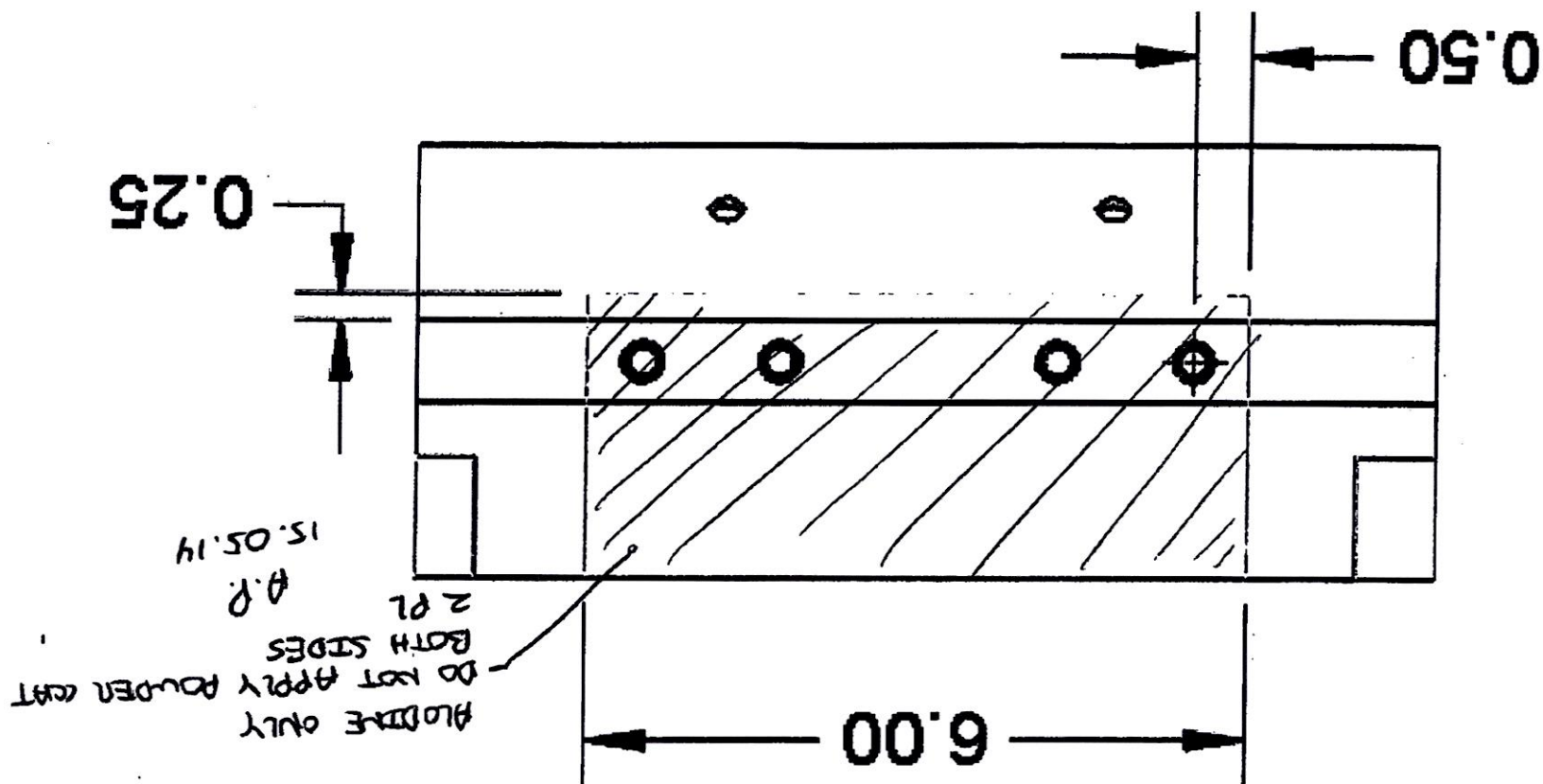
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	15.09.25		1	NO PRIME/PAINT IN SADDLE LOCATIONS	A.P.	ACCEPTABLE PER ATTACHED	A.P.	15.09.25	
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge	☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	15.11.25		1	OPEN UP AFT FLAT HOLES TO Ø0.465 RELIEF OF RIDGE TO Ø0.190 • INSTALL DS101-047 IN AFT BEND REGION • WEARPLATES WITH TEXTURED COATING REPLACES GASKETS TOUCH UP ALUMINUM FINISH	A.P. 15.11.25	ACCEPTABLE			
Doc/Data									
Equip/Tooling									
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Material									
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FAULT CATEGORY			
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